As a below-named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe that I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention, the specification of which is attached hereto and which has the following title:

Calibration of Up and Down Charge-Pump Currents using a Sample-And-Hold Circuit During Idle Times

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to in the oath of declaration. I acknowledge a duty to disclose information which is material to examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby appoint the following Agent to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

Stuart T. Auvinen, Reg. No. 36,435

Address all telephone calls to Stuart T. Auvinen at telephone No. (831) 476-5506.

Address all correspondence to:

Stuart T. Auvinen 429 Twenty-Sixth Ave. Santa Cruz, CA 95062

I hereby declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct, that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, Section 1001, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Joint/First Inventor's Signature

date: 26 Aug 2004

Full name of first inventor:

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